ABSTRACT OF THE DISCLOSURE

A dual actuator arm assembly system that uses two pairs of actuator-carriage arms that linearly move over a stationary micro-rail independently. The geometric shape of the two pairs of actuator carriage arms conform to the arcs of the data tracks at an acute angle. System enables micro-actuation that is integrated to actuator arm and is a function of its geometry. Uninterrupted data stream and sector coverage and thus parallel data transfer scheme is made possible. Each actuator move only within a limited range of disk area, thus precision is increased, vibration is minimized and external transfer rate is speeded up and overall access time is shortened. Instant access to two quarters of the disk with two pairs of actuators and to park these without landing the heads-by positioning and constant fly height during idle mode, or when system is turned off, are introduced as what are new in the art.

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